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ABSTRACT

*P.Q. 00  
3/10/00*  
~~A method of analyzing a communication network comprising determining a mean drop rate in a device x by~~  
~~THAT DETERMINES~~  
polling each device from a network management computer (NMC) which is in communication with the network, and processing signals in the NMC to determine a drop rate  $D(x)$ , in accordance with:

$$D(x) = ((L+(x)-L-(x))/2,$$

$$\text{and } L(x) = 1-A(x)$$

where

$A(x)$ : the fraction of poll requests from the NMC to device  $x$  for which the NMC receives replies (measured over the last  $M$  sampling periods), (wherein  $x$  must not be broken),

$D(x)$ : the mean frame drop rate in device  $x$ ,

$L(c)$ : NMC's perception of the loss rate to device  $x$  and back,

$L-(x)$ : the NMC's perception of the mean value of  $L(z)$  for all devices  $z$  connected to device  $x$ , closer to the NMC than device  $x$  and which are not broken, and

$L+(x)$ : the NMC's perception of the mean value of  $L(z)$  for all devices  $z$  connected to device  $x$ , further away from the NMC than device  $x$  and which are not broken.